PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Hann-Hwan Ju; Ashok Krishnamurthi; Ross Heitkamp; Antony Chatzigianis; Ken Kuwabara	Confirmation No.	2372
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		Group Art Unit:	2151
		Docket No.:	1014-012US01/JNP-0109

Title: SINGLE BOARD ROUTING ARRANGEMENT

CERTIFICATE UNDER 37 CFR 1.8: I hereby certify that this correspondence is being deposited with the United States Post Service, as First Class Mail, in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450 on September 8, 2005.

By: Angela Watson
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicants respectfully request a Pre-Appeal Brief Request for Review, based upon the Examiner's failure to establish a prima facie case of anticipation of the independent claims under 35 U.S.C. § 102. As outlined in greater detail below, the applied references fail to disclose one or more claimed elements. For this reason, the anticipation rejections under 35 U.S.C. § 102 are improper and must be reversed. For purposes of this Pre-Appeal Brief Request for Review, Applicants have not addressed the obviousness rejections under 35 U.S.C. § 103, as the obviousness rejections only apply to dependent claims and are all premised on the anticipation rejections under 35 U.S.C. § 102, which Applicants address below.

Details of some the Examiner's errors are set forth below. For simplicity and brevity, Applicants have primarily focused the arguments below on pending independent claim 16. By

setting forth the clear grounds of error, Applicants do not assert that these are the only errors that the Examiner has made, nor do Applicants waive any arguments that may be asserted in an Appeal Brief.

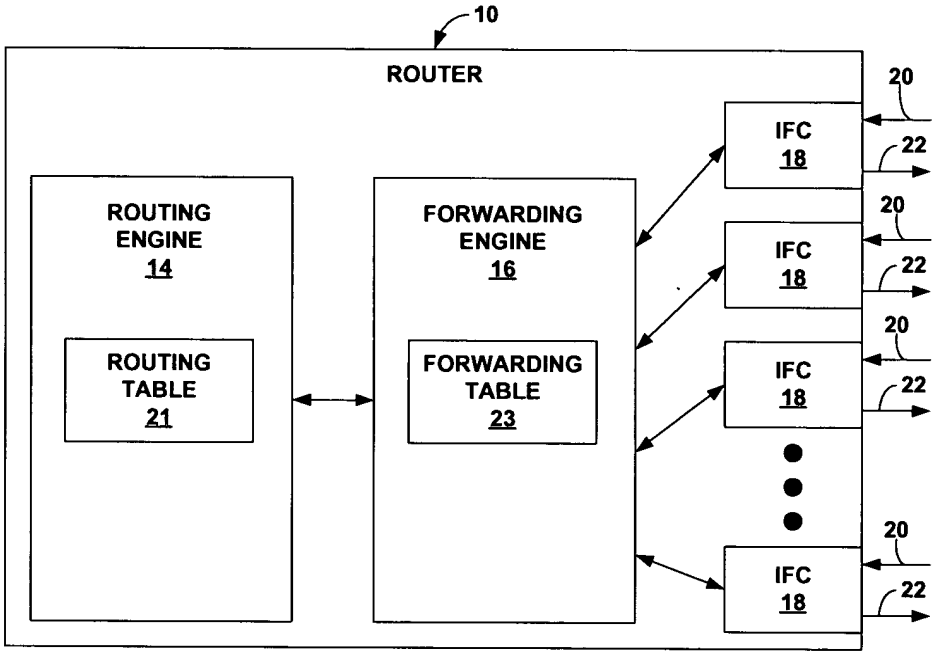
Independent claim 16 recites a routing device comprising a plurality of interface cards to communicate data packets using a network, a router module comprising a packet processing circuit, a memory management circuit, and a route lookup circuit integrated into a single module "separate" from the plurality of interface cards and a routing engine. In addition, claim 16 recites a midplane coupled to the router module and to the plurality of interface cards.

As Applicants have previously explained and outlined extensively on the record, claim 16 specifically requires that the route lookup circuit be separate from a plurality of interface cards. This feature is not taught in the applied references. Therefore, the rejection of claim 16 is clearly erroneous and must be withdrawn.

Independent claims 32, 47, 71, 81, 82 and 83 also require that the route lookup circuit be separate from a plurality of interface cards. For example, independent claim 32 requires a router module separate from the plurality of interface cards. Claim 47 requires a route lookup circuit integrated into a single module "separate" from the plurality of interface cards and a routing engine. Claim 71 is a method claim that requires coupling the plurality of interface modules to a single router module to process the data packets and to forward the data packets between the interface modules. Claim 81 recites a method of manufacture that requires providing a routing module "separate" from the plurality of interface cards. Claim 82 recites a method of manufacture that requires a router module "separate" from the plurality of interface cards. Claim 83 recites a method of manufacture that recites a route lookup circuit integrated into a single module separate from the plurality of interface cards. Claim 85 recites a method of manufacture requires a route lookup circuit be integrated into a single module "separate" from the plurality of interface cards and a routing engine. The remaining independent claims (claims 1, 63 and 84) do not specifically recite the route lookup circuit as being separate from a plurality of interface cards, but these claims nevertheless recite features that are not shown or suggested in the applied reference. For example, claim 1 requires a router module that uses route information to forward data packets between a plurality of interface modules. Applicants reserve further comment on

these claims, but note that more details of how these claims distinguish the applied reference can be found in Applicants' After Final Amendment sent on July 26, 2005.

Referring again to claim 16, this claim specifically requires that the route lookup circuit be separate from the interface cards. This feature is described throughout the present application and shown, for example, in FIG. 2 of the present application. FIG. 2 of the present application is reproduced below and shows one embodiment of a router 10 having a plurality of removable interface cards 18 and a centralized forwarding engine 16 separate from the interface cards. As described in the present application, routing engine 14 and forwarding engine 16 may be formed on a single printed circuit board to provide centralized routing and forwarding functions for a plurality of external interface cards.



In the Final Office Action, the Examiner rejected claim 16 under 35 U.S.C. § 102(e) as being anticipated by Wilford et al. (USPN 6,687,247). Applicants believe that this rejection is clearly erroneous and in violation of the "all elements rule." Accordingly, reversal of the rejections based on this Pre-Appeal Brief Request is appropriate in this case.

In order to support an anticipation rejection under 35 U.S.C. 102(e), it is well established that a prior art reference must disclose each and every element of a claim. This well known rule

of law is commonly referred to as the "all-elements rule."[1] If a prior art reference fails to disclose any element of a claim, then rejection under 35 U.S.C. 102(e) is improper.[2]

The Wilford reference does not anticipate claim 16 insofar as Wilford lacks any teaching or suggestion of a routing module that is separate from a plurality of interface cards. On the contrary, Wilford specifically describes a router in which each interface card include a route lookup circuit. In other words, Wilford describes a common routing architecture in which each interface card makes localized routing decisions for packets received from a network by that particular interface card. In this sense, Wilford describes the antithesis of a routing module that is separate from a plurality of interface cards and performs routing functions for packets received from a network by any of those interface cards, as required by claim 16. The distributed routing architecture of Wilford is probably best illustrated in FIG. 1, reproduced below.

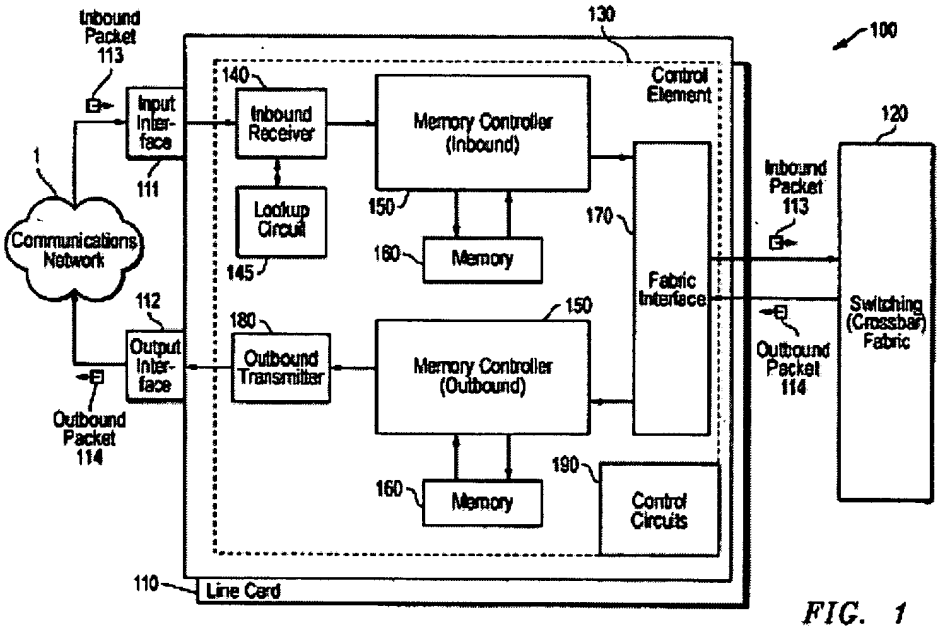


FIG. 1

As shown in FIG. 1 of Wilford, the Wilford router includes a plurality of line cards 110 (which is equivalent to an interface card). Each line card 110 specifically includes its own lookup circuit 145 that performs route lookup for packets 113 received from network 1 by that particular line

[1] *See Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 USPQ 81 (CAFC 1986) ("[I]t is axiomatic that for prior art to anticipate under 102 it has to meet every element of the claimed invention.").
[2] *Id*; *see also Lewmar Marine, Inc. v. Barient, Inc.* 827 F.2d 744, 3 USPQ2d 1766 (CAFC 1987); *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (CAFC 1990); *C.R. Bard, Inc. v. MP Systems, Inc.*, 157 F.3d 1340, 48 USPQ2d 1225 (CAFC 1998); *Oney v. Ratliff*, 182 F.3d 893, 51 USPQ2d 1697 (CAFC 1999); *Apple Computer, Inc. v. Articulate Systems, Inc.*, 234 F.3d 14, 57 USPQ2d 1057 (CAFC 2000).

card. Each line card 110 has a physical interface 11 for receiving the packets. Thus, in Wilford, the lookup circuit 145 is part of the interface card, and each of the interface cards has a corresponding lookup circuit to perform localized routing functions. For at least these reasons, Wilford lacks any suggestion of a route lookup circuit that is separate from interface cards, as required by Applicants' claim 16. Therefore, Wilford fails to anticipate Applicants' claim 16.

FIG. 2 and the other FIGS. of Wilford further illustrate these features, i.e., lookup circuits that are within and local to the interface cards. In Wilford, the routing functionality is performed in the interface cards and a switch fabric couples the interface cards to other interface cards. Nothing in Wilford suggests a routing module that is separate from a plurality of interface cards and that performs route lookup for packets received from a network by any of those interface cards. For this reason, the rejection of claim 16 is clearly erroneous and in violation of the "all elements rule." Similar arguments apply with respect to independent claims 32, 47, 71, 81, 82 and 83. In particular, each of these claims requires a routing module that is separate from the interface cards and that performs routing functions for packets received from any of the interface cards. For the record, Applicants also note that Wilford also lacks several other features of the pending claims. At this time, however, Applicants reserve further comment with respect to independent claims 1, 63 and 84, and also reserve further comment with respect to the dependent claims.

For at least the reasons set forth above, Applicants request a review and a panel decision that promptly resolves the issues in Applicants' favor and eliminates the need for an Appellate Brief at this time. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney.

Date: September 18, 2005

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